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14823 LANCE MISSILE NUMBER 4849 26 APRIL 1983(U) ARMY
ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WSMR NM
ATMOSPHERIC SCIENCES LAB D C KELLER APR 83

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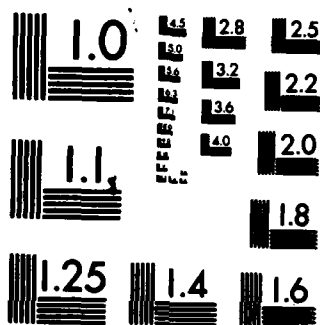
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METEOROLOGICAL DATA REPORT
14823 LANCE
Missile Number 4849
26 April 1983

by

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WHITE SANDS MISSILE RANGE, NEW MEXICO

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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR 1297	2. GOVT ACCESSION NO. AD A129 669	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 14823B LANCE Missile Number 4849		5. TYPE OF REPORT & PERIOD COVERED
7. AUTHOR(s) White Sands Meteorological Team		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS		8. CONTRACT OR GRANT NUMBER(s) DA Task 1F665702D127-02
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research & Development Cmd Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico 88002		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) US Army Electronics Research and Development Cmd Adelphi, MD 20783		12. REPORT DATE April 1983
		13. NUMBER OF PAGES
		15. SECURITY CLASS. (of this report) UNCLASSIFIED
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) Approved for public release; distribution unlimited.		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 14823B LANCE, Missile Number 4849 are presented in tabular form.		

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CONTENTS

	PAGE
INTRODUCTION-----	1
DISCUSSION-----	1
GENERAL AREA MAP-----	2
TABLES:	
1. Surface Observation Taken at 0900 & 0919 MDT at LC-39-----	3
2. LC-36 Pilot-Balloon Measured Wind Data at 0909 MDT-----	4
3. LC-36 Pilot-Balloon Measured Wind Data at 0919 MDT-----	5
4. WSD, NW-30, and JALLEN Computer Met Messages-----	6
5. WSD Significant Level Data at 0900 MDT-----	7
6. WSD Upper Air Data at 0900 MDT-----	9
7. WSD Mandatory Levels at 0900 MST-----	13
8. NW-30 Significant Level Data at 0700 MDT-----	14
9. NW-30 Upper Air Data at 0700 MDT-----	16
10. NW-30 Mandatory Levels at 0700 MDT-----	21
11. JALLEN Significant Level Data at 0900 MDT-----	22
12. JALLEN Upper Air Data at 0900 MDT-----	24
13. JALLEN Mandatory Levels at 0900 MDT-----	30

INTRODUCTION

14823B LANCE, Missile Number 4849, Round Number 384-MST, was launched from LC-39 White Sands Missile Range (WSMR), New Mexico, at 0918:48 MST, 26 April 1983. The scheduled launch time was 0900 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-39 Met Site at T-0 minutes.

(2) Monitor of wind speed and direction from one anemometer was provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from RPTS T-9 pibal observation at:

SITE AND ALTITUDE

LC-36 9000 Feet

(2) Air structure data (rawinsonde) were collected at the following Met Sites:

SITE AND TIME

WSD	0900 MDT
NW-30	0800 MDT
JALLEN	0900 MDT

Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-23	CP



A detailed map of the Los Angeles area, showing various locations and features. The map includes a compass rose indicating North and a scale bar from 0 to 10 miles. Key locations marked include:

- STALLION
- CP-7
- NORTH
- NOP
- RED RIO
- SULF
- CP-17
- ZURF
- SPEC
- AFSWC
- MC
- HARRIET
- SOTIM 3
- OSCURA
- SW-70
- SALINAS PEAK
- DENVER
- HAL
- DEAD HORSE
- NW-50
- JALLEN
- EC-50
- SALT
- SW-50
- TULA GATE
- RITA
- LANA
- TULA PEAK
- TULA PIBAL
- SLAT
- HOLLOMAN
- EC-30
- G47
- SLED
- RATSCAT
- E28
- NW-30
- PONY
- SEEHORN
- APACMF
- ARKY
- NICK
- WALT
- MAR
- DOM
- SMR
- SMR PKT
- FLOWER
- LC-32
- LC-33
- LC-35
- LC-36
- LC-37
- LC-39
- IONOSPHERE
- C STATION

The map also shows major roads, including the Northrup Strip, and various geographical features like the Red Rio and Salinas Peak.

PROJECT SURFACE OBSERVATION

TABLE 1 STATION LC-39

H = 4063.75

Y = 186,564.96

X = 530,938.82

83

Apr

DATE 26 DAY MONTH YEAR

TIME M D I	PRESSURE mbs	TEMPERATURE OF OC	DEW POINT OF OC	RELATIVE HUMIDITY %	DENSITY gm/m ³	WIND			VISIBIL- ITY
						DIRECTION degs	IN Tn	SPEED kts	CHARACTER kts
0900	872.6	20.8	7.6	42		270		09	20
0919	872.5	20.9	7.7	42		270		10	20

OBSTRUCTIONS TO VISIBILITY	CLOUDS									REMARKS
	1st LAYER			2nd LAYER			3rd LAYER			
	AMT	TYPE	HGT	AMT	TYPE	HGT	AMT	TYPE	HGT	
	1	AS	12,500							
	1	AS	12,500							

PSYCHROMETRIC COMPUTATION

TIME:	0900	0919
DRY BULB TEMP.	20.8	20.9
WET BULB TEMP.	12.9	13.0
WET BULB DEPR.	7.9	7.9
DEW POINT	7.6	7.7
RELATIVE HUMID.	42	42

PILOT BALLOON MEASURED WIND DATA

TABLE 2

RELEASED FROM LC-36

DATE 26 Apr 83

TIME 0809 MDT

COORDINATES (WSTM)

$$\chi = 504,466.00$$
$$Y = 190,732.16$$

H= 4037.21

NOTE: WIND DIRECTIONS ARE REFERENCED TO _____.

HEIGHTS ARE METERS AGL OR FEET AGL X .

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
SFC	310	12
200		Misc
400	283	20
600	284	24
800	284	25
1000	285	25
1200	282	22
1400	284	23
1600	288	24
1800	282	24
2000	277	23
2200	276	23
2400	280	22
2600	288	22
2800	288	23
3000	289	24
3200	288	25
3400	289	25
3600	293	22
3800	291	22
4000	292	22
4200	293	23
4400	291	24
4600	288	24
4800	282	25
5000	277	28
5200	271	27
5400	270	30
5600	271	33
5800	271	33

[illegible][illegible]

PILOT BALLOON MEASURED WIND DATA

TABLE 3

RELEASED FROM LC-36

DATE 26 Apr 83

TIME 0919 MDT

COORDINATES (WSTM) X= 504,466.00 Y= 190,732.16 H= 4037.21

NOTE: WIND DIRECTIONS ARE REFERENCED TO _____

HEIGHTS ARE METERS AGL _____ OR FEET AGL X .

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
SFC	315	14
200		MISG
400	284	20
600	284	25
300	281	24
1000	285	24
1200	281	23
1400	283	24
1600	282	24
1800	281	26
2000	274	21
2200	274	22
2400	273	21
2600	274	23
2800	277	27
3000	272	24
3200	281	28
3400	281	26
3600	285	22
3800	286	21
4000	288	20
4200	282	22
4400	278	23
4600	277	25
4800	274	28
5000	271	29
5200	270	31
5400	270	31
5600	271	27
5800	267	26

[illegible][illegible]

COMPUTER MET MESSAGE DATA
26 Apr11 1983

USD 0900 MDT

METCM1324064

261500122873

00462014	29400873
01501022	29140862
02495020	28860837
03486025	28540798
04496030	28170752
05488018	27780707
06477020	27380665
07476026	27070625
08447022	26780586
09436017	26420550
10431022	26040515
11439026	25650483
12437029	25110436
13435028	24350380
14435032	23520330
15453033	22690285
16455047	22030244
17475061	21640209
18474063	21430179
19476062	21780152
20467055	21510130
21467052	21030111
22457050	20920095
23473030	21320081
24495010	21260069
25447014	21610059
26402006	21730050

NW-30 0800 MDT

METCM1329065

261400122871

00533004	29090871
01501006	29010861
02470008	28800836
03472021	28460797
04408014	28060750
05489024	27690706
06178032	27530663
07454031	27200623
08453035	26780585
09421023	26370549
10405022	25950514
11420023	25530481
12430035	24930435
13431034	24300379
14441035	23520328
15448041	22630283
16451055	21980243
17465067	21580208
18475072	21420178
19473081	21550152
20468081	21320129
21460066	21090110
22473056	21070094
23480046	21170080
24414005	21200068
25458013	21560058
26163016	21610050

JALLEN 0900 MDT

METCM1332065

261500124871

00444002	29260871
01349005	29180861
02406003	28900836
03470003	28500797
04491011	28040750
05479013	27660706
06478029	27450663
07454029	27220623
08434028	26750585
09417026	26370549
10417025	25950514
11429032	25560481
12422036	25020435
13453036	24300379
14444040	23470329
15450042	22610283
16457056	21940243
17476075	21640208
18471070	21370178
19466031	21510152
20460080	21420129
21461071	21230110
22475062	21120094
23504028	21190080
24329008	21290068
25221011	21530058
26144008	21720050

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

SIGNIFICANT LEVEL DATA
1160020204
WHITE SANDS

STATION ALTITUDE 3000.00 FT MSL
0900 HDT
24 APR 65
ACQUISITION NO. 24

TABLE 5

PRESSURE	GEODETIC ALTITUDE	TEMPERATURE AIR	TEMPERATURE DEWPOINT	REL. HUM. PERCENT
WILIBARS	MFL FEET	DEGREES	CENTIGRADE	
972.5	3089.0	20.1	4.6	36.0
960.5	4240.4	17.5	-2.7	25.0
956.0	4721.0	15.9	-3.1	27.0
825.7	5520.3	13.8	-3.5	30.0
775.3	7250.0	10.0	-0.1	27.0
700.0	10013.1	3.7	-16.0	22.0
640.1	12211.6	-1.5	-22.1	19.0
630.0	12790.0	-2.2	-23.9	17.0
603.8	13894.7	-4.1	-24.0	18.0
578.2	15013.2	-6.2	-23.9	23.0
520.8	17671.9	-12.2	-31.0	19.0
500.0	18691.4	-14.8	-33.2	19.0
458.3	20839.5	-19.5	-37.2	19.0
400.0	24118.1	-26.7	-43.3	19.0
357.2	26770.5	-33.3	-48.4	20.0
350.4	27214.1	-34.2	-48.8	21.0
324.5	28965.4	-39.0	-52.5	22.0
300.0	30720.4	-43.6		
290.3	30995.0	-43.7		
268.5	33147.2	-49.6		
256.7	34111.7	-51.7		
250.0	34670.4	-51.9		
233.9	36903.6	-54.6		
228.5	36581.2	-54.5		
212.5	38107.6	-56.0		
200.0	39371.3	-58.3		
192.1	40204.5	-59.6		
177.4	41344.7	-59.8		
175.0	42120.3	-58.1		
167.8	43090.0	-57.4		
163.4	43555.3	-56.0		
150.0	45153.5	-55.0		
143.5	46287.0	-54.9		
112.3	51357.3	-63.2		
100.0	53700.3	-64.0		
93.7	55013.5	-65.0		
90.3	55765.4	-63.2		
82.2	57675.0	-62.5		
72.1	58469.9	-56.6		
70.9	61000.7	-60.4		

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GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

SIGNIFICANT LEVEL DATA
1100020204
WHITE SANDS

TABLE 5 Cont'd

STATION ALTITUDE 530.00 FT MSL
26 APR 63 0900 MDT
ASCL 651.00 100. 200

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES	DEWPOINT CENTIGRADE	
57.1 61072.4	-62.0		
60.9 63072.2	-57.0		
59.0 68007.2	-55.0		
50.4 73507.8	-53.6		
50.7 75345.5	-51.4		
30.3 78661.7	-52.2		

STATION ALTITUDE 5400.0 FEET SL
 26 APR 63 0900 MDT
 ASSUMED NO. 24

UPPER AIR DATA
 1140020204
 WHITE SANDS

GEOMETRIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

TABLE 6

GEOMETRIC ALTITUDE FSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL. HUMID. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND M/SEC	WIND DATA DIRECTION DEGREES(TI)	SPEED KNOTS	INDEX OF REFRACTION
3900.0	872.5	70.1	36.0	1032.7	660.4	260.0	14.0	1.000267
4000.0	872.2	70.0	35.5	1032.7	660.2	260.2	14.1	1.000267
4500.0	850.0	66.6	26.1	1027.7	663.9	266.6	17.1	1.000251
5000.0	841.5	65.2	28.0	1014.5	662.2	271.0	20.2	1.000248
5500.0	820.5	63.0	29.9	1001.0	660.7	274.2	23.5	1.000245
6000.0	811.6	62.8	29.2	986.9	659.4	275.2	25.6	1.000240
6500.0	797.6	61.7	28.3	973.0	653.1	274.9	26.8	1.000235
7000.0	782.6	60.6	27.4	959.3	650.0	275.2	27.5	1.000230
7500.0	760.3	59.4	26.6	945.7	653.4	276.4	27.3	1.000226
8000.0	754.2	58.3	25.7	932.2	654.0	277.6	27.1	1.000221
8500.0	740.4	57.2	24.7	919.0	652.7	277.3	26.0	1.000217
9000.0	726.8	56.0	23.8	905.9	651.3	276.6	24.7	1.000213
9500.0	713.4	54.7	22.9	893.0	649.9	275.9	23.4	1.000209
10000.0	700.3	53.7	22.0	880.3	648.6	274.4	22.0	1.000205
10500.0	687.2	52.5	21.3	867.6	647.1	272.6	20.7	1.000201
11000.0	674.3	51.4	20.7	855.1	645.7	270.5	19.4	1.000197
11500.0	661.7	50.2	20.0	842.7	644.3	269.1	19.0	1.000194
12000.0	649.3	49.3	19.3	830.6	642.9	268.1	19.2	1.000191
12500.0	637.6	48.0	18.0	817.5	641.9	267.1	19.5	1.000187
13000.0	624.9	46.6	17.2	804.1	641.0	266.3	21.4	1.000184
13500.0	613.2	45.4	17.6	791.4	640.0	264.1	23.3	1.000181
14000.0	601.3	44.3	18.5	778.8	638.9	260.6	24.2	1.000178
14500.0	589.8	43.2	20.7	766.5	637.8	256.6	23.7	1.000175
15000.0	578.5	42.2	22.9	754.4	636.7	252.9	23.2	1.000173
15500.0	567.2	41.3	22.3	742.9	635.4	245.6	20.8	1.000170
16000.0	556.2	40.4	21.5	731.6	634.0	240.3	19.4	1.000167
16500.0	545.4	39.6	20.8	720.4	632.8	237.8	18.7	1.000164
17000.0	534.7	38.7	20.0	709.5	631.3	240.7	19.5	1.000161
17500.0	524.3	37.8	19.3	698.7	629.9	243.1	20.3	1.000158
18000.0	514.0	36.9	19.0	688.2	628.4	242.5	21.4	1.000156
18500.0	503.8	36.0	19.0	677.9	626.9	242.0	22.5	1.000153
19000.0	493.9	35.1	19.0	667.4	625.4	242.3	23.9	1.000151
19500.0	484.2	34.2	19.0	656.8	624.1	242.5	25.2	1.000148
20000.0	474.2	33.3	19.0	646.4	622.8	243.7	26.3	1.000146
20500.0	464.7	32.4	19.0	636.2	621.4	245.1	27.3	1.000143
21000.0	455.3	31.5	19.0	626.0	620.1	246.3	28.5	1.000141
21500.0	445.9	30.6	19.0	615.8	618.7	247.2	29.7	1.000138
22000.0	436.8	29.7	19.0	605.6	617.4	247.8	30.5	1.000136
22500.0	427.0	28.8	19.0	596.0	616.0	247.8	29.8	1.000134
23000.0	417.0	27.9	19.0	586.3	614.7	247.6	28.9	1.000132

STATION ALTITUDE 3399.00 FEET MSL
26 APR. 63 0900 MDT
ASCENSION NO. 214

UPPER AIR DATA
1100020204
WHITE SANDS

GEOGRAPHIC COORDINATES
32-40043 LAT DEG
106-37033 LONG DEG

TABLE 6 Cont'd

GEOMETRIC ALTITUDE	PRESSURE	AIR TEMPERATURE	REL. HUM. PERCENT	DENSITY G/M ³ /CM ³	SPEED OF SOUND KNOTS	WIND DIRECTION (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
MSL FEET	HILLIARIS DEGREES	CELSIUS		METER		DEGREES		
23500.0	419.4	-25.3	19.0	570.8	613.3	246.6	27.4	1.000129
24000.0	402.0	-26.4	19.0	567.5	611.9	245.7	26.8	1.000127
24500.0	393.5	-27.7	19.1	558.4	610.4	244.9	27.0	1.000125
25000.0	385.2	-28.9	19.3	549.4	608.9	245.1	27.7	1.000123
25500.0	377.1	-30.1	19.5	540.5	607.3	245.4	28.4	1.000121
26000.0	369.1	-31.4	19.7	531.6	605.8	245.1	28.5	1.000119
26500.0	361.3	-32.6	19.9	523.5	604.2	245.1	28.7	1.000117
27000.0	353.7	-33.8	20.5	514.6	602.8	245.5	29.3	1.000115
27500.0	346.0	-35.0	21.2	505.1	601.2	245.7	30.1	1.000113
28000.0	338.5	-36.4	21.4	496.0	599.5	245.8	31.2	1.000111
28500.0	331.2	-37.7	21.7	487.0	597.8	245.3	31.8	1.000109
29000.0	324.0	-39.1	21.6**	478.2	596.0	244.6	32.3	1.000108
29500.0	316.8	-40.4	15.3**	474.2	594.4	244.5	32.8	1.000106
30000.0	309.8	-41.7	9.0**	460.3	592.7	245.1	33.2	1.000104
30500.0	303.2	-43.0	2.0**	458.0	591.0	248.4	33.3	1.000102
31000.0	296.2	-44.3		449.8	590.1	253.2	33.7	1.000100
31500.0	289.5	-45.1		442.2	588.3	257.9	34.3	1.000098
32000.0	283.7	-46.5		434.9	586.6	258.3	34.2	1.000096
32500.0	278.6	-47.8		427.0	584.8	256.6	33.8	1.000095
33000.0	273.3	-49.2		420.5	583.0	254.8	34.5	1.000094
33500.0	268.1	-50.4		413.0	581.5	253.3	35.7	1.000092
34000.0	263.0	-51.5		405.5	580.1	253.9	39.1	1.000090
34500.0	258.1	-51.8		396.8	579.6	254.4	42.6	1.000088
35000.0	248.2	-52.5		388.8	578.7	254.8	46.2	1.000087
35500.0	240.5	-53.5		381.4	577.4	255.2	49.8	1.000085
36000.0	234.0	-54.4		374.1	576.2	257.1	51.7	1.000083
36500.0	229.4	-54.5		365.5	576.0	258.8	53.7	1.000081
37000.0	224.0	-54.9		357.6	575.5	262.7	55.6	1.000080
37500.0	219.7	-55.4		349.9	574.9	266.6	57.6	1.000078
38000.0	215.6	-55.9		342.5	574.2	267.9	59.4	1.000076
38500.0	209.5	-56.7		335.7	573.1	268.7	61.1	1.000075
39000.0	203.6	-57.6		329.1	571.9	267.7	62.3	1.000073
39500.0	198.8	-58.5		322.6	570.8	266.5	63.5	1.000072
40000.0	194.0	-59.3		316.0	569.7	266.9	64.2	1.000070
40500.0	189.4	-59.6		309.7	569.3	268.0	64.8	1.000069
41000.0	184.0	-59.7		301.6	569.2	268.3	65.0	1.000067
41500.0	180.4	-59.8		294.5	569.1	268.1	64.9	1.000066
42000.0	176.1	-59.9		286.2	570.3	267.2	64.1	1.000064
42500.0	171.9	-57.8		270.1	571.7	265.7	62.9	1.000062
43000.0	167.8	-57.4		270.9	572.2	265.2	65.9	1.000060

** AT LAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3,000.00 FEET ISL
25 APR. 63 0900 MDT
ASL 1510.00 234

UPPER AIR DATA
1150020204
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 6 Cont'd

GEODETIC ALTITUDE ASL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CELSIUS	REL. HUMID. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/SEC	WIND DATA DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
43500.0	100.8	-55.1		263.0	573.9	265.1	70.7	1.000039
44000.0	100.2	-55.8		250.4	574.4	266.0	69.8	1.000057
44500.0	100.2	-55.5		250.0	574.8	267.1	68.1	1.000056
45000.0	102.5	-55.2		243.6	575.1	268.3	61.0	1.000054
45500.0	149.0	-55.0		237.9	575.4	269.5	54.7	1.000053
46000.0	143.5	-54.9		232.2	575.5	269.1	52.8	1.000052
46500.0	142.0	-55.2		227.1	575.1	268.3	51.4	1.000051
47000.0	130.6	-56.1		222.5	574.0	266.5	51.2	1.000050
47500.0	133.3	-56.9		216.0	572.9	264.8	52.3	1.000049
48000.0	132.1	-57.7		213.6	571.8	263.3	54.9	1.000048
48500.0	128.4	-58.5		209.3	570.7	262.0	57.3	1.000047
49000.0	123.9	-59.3		205.1	569.7	261.4	58.2	1.000046
49500.0	122.0	-60.2		200.9	568.6	260.8	59.1	1.000045
50000.0	119.9	-61.0		196.9	567.5	260.8	58.2	1.000044
50500.0	117.1	-61.8		192.9	566.4	261.1	56.6	1.000043
51000.0	114.3	-62.6		189.1	565.3	261.7	54.4	1.000042
51500.0	111.5	-63.2		185.1	564.4	262.9	51.3	1.000041
52000.0	108.8	-63.4		180.7	564.2	263.5	49.2	1.000040
52500.0	106.1	-63.6		176.4	564.0	263.3	48.3	1.000039
53000.0	103.5	-63.8		172.3	563.7	262.1	48.3	1.000038
53500.0	101.0	-63.9		168.2	563.5	260.3	49.0	1.000037
54000.0	98.6	-64.2		164.3	563.1	258.9	49.7	1.000037
54500.0	96.1	-64.6		160.0	562.6	257.6	50.4	1.000036
55000.0	93.8	-65.0		157.0	562.1	257.3	50.8	1.000035
55500.0	91.5	-65.8		152.3	563.6	257.1	51.0	1.000034
56000.0	89.3	-65.9		148.1	564.6	257.5	49.9	1.000033
56500.0	87.1	-62.9		144.3	564.8	258.0	48.4	1.000032
57000.0	85.0	-62.7		140.7	565.1	259.3	42.5	1.000031
57500.0	82.0	-62.6		137.2	565.3	261.4	35.0	1.000031
58000.0	80.9	-60.1		132.3	568.6	265.1	27.1	1.000029
58500.0	79.0	-66.6		127.1	573.2	272.0	19.0	1.000028
59000.0	77.1	-57.4		124.5	572.2	279.8	14.5	1.000028
59500.0	75.3	-58.1		122.0	571.2	282.5	13.5	1.000027
60000.0	73.5	-58.9		119.5	570.2	285.0	12.6	1.000027
60500.0	71.7	-59.6		117.0	569.3	280.8	13.0	1.000026
61000.0	70.0	-60.4		114.7	568.3	276.9	13.5	1.000026
61500.0	68.3	-61.8		112.6	568.4	273.1	12.6	1.000025
62000.0	66.7	-62.4		110.2	565.5	268.3	11.0	1.000025
62500.0	65.1	-61.0		106.9	567.5	262.1	9.7	1.000024
63000.0	63.5	-59.5		103.6	569.4	254.1	8.7	1.000023

STATION ALTITUDE 3000.00 FEET MS,
26 APR. 63 0900 MDT
ASCENSION NO. 274

UPPER AIR DATA
1160020204
WHITE SALES

GEODETLIC COORDINATES
32.40003 LAT DEG
106.57033 LONG DEG

TABLE 6 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND M/SEC	WIND DATA DIRECTION (TH) SPEED KNOTS	INDEX OF REFRACTION
03500.0	62.2	-58.1		100.4	571.3	245.2	1.000022
04000.0	60.5	-57.0		97.5	572.8	244.5	1.000022
04500.0	59.1	-56.0		95.2	573.0	243.8	1.000021
05000.0	57.7	-55.7		92.9	573.2	243.6	1.000021
05500.0	56.4	-55.6		90.6	573.3	250.1	1.000020
06000.0	55.2	-55.4		88.4	573.5	253.6	1.000020
06500.0	53.7	-55.3		86.3	573.7	256.7	1.000019
07000.0	52.5	-55.2		84.2	573.9	258.7	1.000019
07500.0	51.2	-55.0		82.2	574.0	259.7	1.000018
08000.0	50.0	-55.0		80.2	574.2	250.1	1.000018
08500.0	48.8	-55.7		78.3	574.5	247.7	1.000017
09000.0	47.7	-55.5		76.4	574.8	241.6	1.000017
09500.0	46.6	-55.3		74.5	575.0	237.5	1.000017
10000.0	45.5	-55.1		72.7	575.3	233.5	1.000016
10500.0	44.4	-54.9		70.9	575.6	226.9	1.000016
11000.0	43.4	-54.7		69.2	575.8	219.3	1.000015
11500.0	42.4	-54.5		67.5	576.1	212.5	1.000015
12000.0	41.4	-54.3		65.9	576.4	204.4	1.000015
12500.0	40.4	-54.0		64.3	576.7	200.2	1.000014
13000.0	39.5	-53.8		62.7	576.9	201.0	1.000014
13500.0	38.6	-53.6		61.2	577.2	202.7	1.000014
14000.0	37.7	-53.0		59.6	578.0	205.4	1.000013
14500.0	36.8	-52.3		58.0	578.9	207.9	1.000013
15000.0	35.9	-51.6		56.5	579.9	212.3	1.000013
15500.0	35.1	-51.5		55.2	580.0	216.2	1.000012
16000.0	34.3	-51.6		53.9	579.9	212.2	1.000012
16500.0	33.5	-51.7		52.7	579.7	200.6	1.000011
17000.0	32.7	-51.8		51.5	579.6		1.000011
17500.0	32.0	-51.9		50.4	579.5		1.000011
18000.0	31.2	-52.0		49.2	579.3		1.000011
18500.0	30.5	-52.2		48.1	579.1		1.000011

STATION ALTITUDE 3000.00 FT SL
 26 APR. 63 0900 MDT
 ACQUISITION NO. 230

BAROMETER LEVELS
 11.00020204
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.57033 LONG DEG

TABLE 7

PRESSURE	GEOMETRICAL	TEMPERATURE	ALL-HOUR	WIND DATA
HALLIMAN	FEET	ADP DEGREES CENTIGRADE	PERCENT	DIRECTION DEGREES(TN) SPEED KNOTS
858.0	4718.	15.9	21.	268.7 18.4
805.0	6303.	11.9	28.	275.0 20.6
750.0	8151.	8.0	25.	277.7 20.9
700.0	10003.	3.7	22.	274.4 22.0
650.0	11960.	-0.9	19.	268.2 19.2
600.0	14002.	-4.4	19.	260.2 24.1
550.0	16271.	-9.1	21.	236.6 16.9
500.0	18665.	-14.8	19.	242.1 23.0
450.0	21253.	-20.5	19.	246.8 29.2
400.0	24078.	-26.7	19.	245.6 20.9
350.0	27101.	-34.3	21.	245.7 29.6
300.0	30660.	-43.6		250.5 33.4
250.0	34602.	-51.9		254.5 43.7
200.0	39278.	-58.3		266.8 63.1
175.0	42021.	-58.1		266.9 63.9
150.0	45233.	-55.0		269.3 56.3
125.0	49025.	-50.6		261.2 56.4
100.0	53542.	-64.0		259.7 49.2
80.0	58043.	-58.3		267.3 23.7
70.0	60708.	-60.4		277.1 13.5
60.0	63955.	-56.9		244.3 7.7
50.0	67752.	-55.9		256.7 9.8
40.0	72432.	-54.0		200.4 7.5

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4910.00 FEET MSL
26 APR. 63
ASSET SIGN. NO. 11 0800 MDT

SIGNIFICANT LEVEL DATA
1160220010
NY 30 =

GEODETIC COORDINATES
32.08497 LAT DEG
106.49714 LON DEG

TABLE 8

PRESSURE GEODETIC ALTITUDE MILLIBARS AGL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
670.0	17.2	-1.0
650.0	15.6	-3.8
592.4	11.3	-5.2
762.2	6.2	-0.7
725.8	4.2	-9.5
700.0	2.9	-14.2
674.8	2.0	-10.7
647.4	.9	-22.8
594.2	-5.7	-23.6
532.2	-11.6	-29.0
500.0	-15.6	-32.4
427.2	-25.2	-40.2
400.0	-27.6	-44.0
360.0	-31.4	-40.8
334.0	-36.8	-51.0
323.0	-39.2	-53.1
300.0	-44.0	
282.8	-47.3	
260.8	-50.3	
250.0	-52.5	
236.8	-54.5	
219.2	-56.4	
214.0	-56.3	
200.0	-58.4	
188.4	-60.2	
169.0	-58.1	
150.8	-57.2	
150.0	-59.1	
142.4	-60.9	
117.8	-63.4	
106.2	-62.2	
100.0	-62.8	
79.0	-59.8	
77.5	-59.8	
76.0	-61.5	
70.0	-62.6	
60.6	-56.9	
50.0	-57.4	
50.0	-56.2	
44.6		

GEODETIC COORDINATES
32.88497 LAT (EG)
106.49714 LONG (EG)

STATIONARY LEVEL DATA
1100220010
RW.30

TABLE 8 Cont'd

STATION ALTITUDE 4,10.00 FEET MSL
26 APR. 13 0800 MDT
ASCESSION NO. 10

PRESSURE GEOMETRIC ALTITUDE FILLIARS, MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR	DEWPOINT DEGREES CENTIGRADE	
42.2	71.75.9	-54.6	
37.0	74.149.5	-56.0	
34.6	75.569.1	-53.1	
30.0	78.10.9	-52.0	
25.4	82.160.0	-52.5	
20.0	87.52.0	-46.1	
14.2	94.50.3	-42.7	
12.2	98.79.6	-38.0	

TABLED ALTITUDE 4010.0 F LT 5L
26 APR 55
ACCELERATION 0.0 0800 MDT

UNDER AIR DATA
1160220010
IM 30

TABLE 9

GEODETIC COORDINATES
32.00397 LAT DEG
106.49714 LONG DEG

GEOMETRIC ALTITUDE FSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUMID. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KIOTS	DIRECTION DEGREES (TH)	WIND DATA SPEED KIOTS	INJFX OF REFRACTION
4010.0	870.8	17.2	27.0	1042.2	664.0	300.0	4.1	1.000258
4500.0	855.7	16.0	26.8	1020.5	663.2	200.5	6.0	1.000251
5000.0	840.4	14.7	27.0	1014.8	661.7	270.6	8.4	1.000247
5500.0	825.3	13.4	28.6	1001.3	660.1	205.6	11.2	1.000243
6000.0	810.5	12.0	30.1	980.0	658.0	204.5	16.2	1.000240
6500.0	795.9	10.8	31.5	974.5	657.1	205.4	20.5	1.000236
7000.0	781.4	9.7	32.5	960.6	655.8	200.0	22.3	1.000233
7500.0	767.2	8.6	33.6	946.9	654.5	276.0	18.8	1.000229
8000.0	753.2	7.3	34.4	933.9	653.0	202.5	16.0	1.000225
8500.0	739.3	5.9	35.1	921.4	651.5	287.2	14.7	1.000221
9000.0	725.7	4.5	35.8	909.1	649.7	282.1	18.3	1.000217
9500.0	712.2	3.6	31.9	895.3	648.5	273.1	21.9	1.000212
10000.0	699.0	2.9	26.7	881.2	647.0	274.0	25.3	1.000206
10500.0	686.0	2.7	22.6	865.4	647.4	270.9	28.3	1.000201
11000.0	673.2	2.5	18.8	850.1	647.1	203.7	30.3	1.000196
11500.0	660.6	1.7	16.9	830.6	646.1	200.6	32.1	1.000192
12000.0	648.2	1.0	15.1	823.4	645.2	264.0	33.1	1.000188
12500.0	635.9	-2	15.7	811.3	643.8	201.6	34.2	1.000186
13000.0	623.9	-1.5	16.4	799.6	642.3	259.1	33.0	1.000183
13500.0	612.0	-2.7	17.2	788.0	640.8	256.4	31.5	1.000180
14000.0	600.4	-3.9	17.9	776.5	639.4	254.4	30.6	1.000177
14500.0	589.7	-5.2	18.7	765.3	637.9	252.1	29.9	1.000175
15000.0	577.7	-5.4	19.4	754.1	636.4	248.5	29.3	1.000172
15500.0	566.4	-7.7	20.0	742.9	634.9	244.2	27.0	1.000169
16000.0	555.4	-8.9	20.6	731.9	633.4	239.4	24.7	1.000167
16500.0	544.6	-10.1	21.3	721.1	631.9	235.6	23.7	1.000164
17000.0	534.0	-11.4	21.9	710.4	630.4	232.1	23.0	1.000161
17500.0	523.5	-12.7	22.0	699.8	628.9	231.4	23.3	1.000159
18000.0	513.1	-13.9	22.0	689.4	627.3	230.8	23.6	1.000156
18500.0	503.1	-15.2	22.0	679.1	625.8	232.2	23.3	1.000154
19000.0	492.8	-16.5	22.1	668.7	624.2	233.7	23.0	1.000151
19500.0	482.8	-17.7	22.2	658.4	622.7	235.3	23.2	1.000149
20000.0	473.0	-19.0	22.4	648.2	621.2	237.0	24.0	1.000146
20500.0	463.4	-20.2	22.5	638.2	619.6	238.6	24.7	1.000144
21000.0	454.0	-21.5	22.6	628.3	618.1	239.5	27.0	1.000141
21500.0	444.8	-22.7	22.7	618.6	616.5	240.3	29.3	1.000139
22000.0	435.7	-24.0	22.9	609.1	615.0	241.3	32.7	1.000137
22500.0	426.7	-25.2	23.0	599.7	613.5	242.2	36.7	1.000135
23000.0	418.0	-26.8	21.7	589.1	612.5	242.3	39.8	1.000132
23500.0	409.3	-28.8	20.4	578.6	611.5	242.0	42.2	1.000130

GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LONG DEG

UPPER AIR DATA
110626010
10M 30

TABLE 9 Cont'd

STATION ALTITUDE 10000 FEET SL
26 APR 63 0800 MDT
ASCENDING NO. 13

GEOMETRIC ALTITUDE NSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUMID. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION, DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
24000.0	400.8	-27.5	-43.9	19.1	560.3	610.0	238.5	37.2	1.000127
24500.0	392.3	-28.5	-44.7	19.2	558.6	609.4	240.3	36.9	1.000125
25000.0	384.1	-29.5	-45.4	19.5	549.1	606.1	244.6	37.5	1.000123
25500.0	376.0	-30.5	-46.2	19.8	539.6	606.9	244.0	28.2	1.000121
26000.0	368.7	-31.5	-46.9	20.0	530.6	605.6	243.0	29.4	1.000119
26500.0	360.1	-32.7	-47.8	20.2	521.8	604.1	243.2	33.1	1.000117
27000.0	352.0	-33.9	-48.7	20.5	513.1	602.0	244.4	34.1	1.000115
27500.0	344.0	-35.1	-49.7	20.7	504.5	601.1	247.5	32.8	1.000113
28000.0	337.4	-36.2	-50.0	20.9	496.2	599.6	250.1	36.0	1.000111
28500.0	330.1	-37.6	-51.7	21.0	488.3	597.9	250.1	37.1	1.000109
29000.0	322.9	-39.2	-53.1	20.0**	480.9	595.9	248.7	37.0	1.000107
29500.0	315.8	-40.7	-57.3	14.6**	473.2	594.0	248.0	36.7	1.000106
30000.0	308.8	-42.1	-62.9	8.2**	465.6	592.1	247.4	37.0	1.000104
30500.0	302.0	-43.6	-74.3	1.8**	458.2	590.3	247.4	38.6	1.000102
31000.0	295.2	-44.9			450.5	588.6	248.1	40.0	1.000100
31500.0	288.5	-46.2			442.6	586.9	249.3	41.3	1.000099
32000.0	282.0	-47.4			435.2	585.3	251.4	41.8	1.000097
32500.0	275.6	-48.5			427.3	583.9	253.9	41.9	1.000095
33000.0	269.3	-49.5			419.5	582.6	254.5	44.0	1.000093
33500.0	263.1	-50.5			411.8	581.2	254.6	46.6	1.000092
34000.0	257.0	-51.4			403.9	580.1	253.8	50.1	1.000090
34500.0	251.1	-52.3			396.1	578.9	253.9	52.1	1.000088
35000.0	245.2	-53.2			388.4	577.8	254.4	53.7	1.000087
35500.0	239.5	-54.1			380.9	576.6	254.7	57.3	1.000085
36000.0	233.9	-54.9			373.2	575.7	255.3	59.9	1.000083
36500.0	228.4	-55.4			365.4	574.9	256.3	61.3	1.000081
37000.0	222.8	-56.0			357.8	574.1	257.8	62.3	1.000080
37500.0	217.8	-56.4			350.0	573.6	259.8	63.1	1.000078
38000.0	212.6	-56.5			341.9	573.4	261.1	65.2	1.000076
38500.0	207.6	-57.2			333.0	572.4	262.2	67.6	1.000075
39000.0	202.7	-58.0			325.1	571.4	262.8	68.9	1.000073
39500.0	197.8	-58.7			321.4	570.5	263.2	70.1	1.000072
40000.0	193.1	-59.5			314.8	569.5	264.4	69.4	1.000070
40500.0	188.5	-60.2			308.3	568.5	265.7	68.3	1.000069
41000.0	184.0	-60.7			300.3	569.1	266.9	68.0	1.000067
41500.0	179.6	-61.3			292.5	569.7	267.9	68.1	1.000065
42000.0	175.3	-61.8			284.9	570.4	267.9	69.9	1.000063
42500.0	171.1	-62.3			277.5	571.0	267.8	71.6	1.000062
43000.0	167.0	-62.9			270.3	571.6	267.6	73.4	1.000060
43500.0	163.7	-63.5			263.4	572.1	267.0	75.0	1.000059

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4510.00 F ET MSL
24 APR. 73 0800 MDT
ASTORIA, O. 1

UPPER AIR DATA
1100220010
NW 30

GEOGETIC COORDINATES
32.58497 LAT LLG
106.49714 LONG DEG

TABLE 9 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES TRU)	SPEED KNOTS	INDEX OF REFRACTION
44000.0	159.2	-57.2		250.0	572.5	206.4	76.6	1.000057
44100.0	159.4	-57.1		250.6	572.6	206.1	77.1	1.000056
44200.0	151.7	-57.0		244.6	572.7	205.8	78.0	1.000054
44300.0	140.1	-57.5		239.3	572.1	205.8	80.0	1.000053
44400.0	140.6	-58.5		234.7	570.6	205.4	83.0	1.000052
44500.0	141.2	-59.2		229.0	569.9	204.6	86.9	1.000051
44600.0	137.9	-59.4		224.5	569.0	203.8	88.5	1.000050
44700.0	134.5	-59.6		219.4	569.2	202.9	88.5	1.000049
44800.0	131.2	-59.9		214.4	568.9	202.1	88.2	1.000048
44900.0	120.1	-70.1		209.4	568.6	201.4	84.8	1.000047
449000.6	125.0	-60.3		204.6	568.3	200.6	81.4	1.000046
44950.0	122.0	-60.6		199.9	568.0	200.0	78.2	1.000045
50000.0	119.1	-60.8		195.4	567.7	209.5	75.0	1.000044
50500.0	110.2	-61.2		191.0	567.1	209.2	72.1	1.000043
51000.0	113.4	-61.8		186.9	566.3	209.0	69.5	1.000042
51500.0	110.6	-62.4		182.9	565.5	209.1	66.4	1.000041
52000.0	100.0	-63.0		179.0	564.8	209.5	63.0	1.000040
52500.0	105.3	-63.2		174.0	564.4	209.4	60.4	1.000039
53000.0	102.3	-62.7		170.2	563.1	201.8	58.7	1.000038
53500.0	100.3	-62.3		165.7	563.8	203.1	58.2	1.000037
54000.0	97.0	-62.3		161.0	563.0	204.2	58.8	1.000036
54500.0	95.5	-62.3		157.8	563.7	205.0	59.4	1.000035
55000.0	93.2	-62.4		154.0	563.0	205.3	60.2	1.000034
55500.0	90.0	-62.4		150.3	563.5	205.5	60.8	1.000033
56000.0	80.7	-62.5		140.7	563.4	205.8	60.4	1.000033
56500.0	80.6	-62.6		143.2	563.3	206.1	60.1	1.000032
57000.0	84.5	-62.6		139.8	563.3	206.7	57.5	1.000031
57500.0	82.4	-62.7		136.4	563.2	207.5	54.7	1.000030
58000.0	80.4	-62.8		133.1	563.1	208.5	49.6	1.000030
58500.0	70.5	-61.7		129.3	566.5	270.1	42.3	1.000029
59000.0	70.6	-59.8		125.0	569.0	272.4	34.9	1.000028
59500.0	74.7	-60.1		122.2	568.0	273.8	26.9	1.000027
60000.0	72.9	-60.7		119.6	567.9	276.3	19.0	1.000027
60500.0	71.2	-61.2		117.0	567.2	274.6	13.9	1.000026
61000.0	69.5	-61.7		114.4	566.5	205.5	11.2	1.000025
61500.0	67.3	-62.2		112.0	565.8	202.5	9.3	1.000025
62000.0	60.2	-62.3		109.3	563.7	243.0	9.7	1.000024
62500.0	64.6	-61.3		100.2	567.0	234.4	10.2	1.000024
63000.0	63.0	-70.3		103.2	568.3	232.1	8.7	1.000023
63500.0	61.5	-49.3		100.2	569.7	229.6	6.9	1.000022

STATION ALTITUDE 4-10-00 FEET MS,
26 APR. 63 0800 MDT
ASCLSION NO. 1

UNPLD AIR DATA
1100220010
NW 30

GEODETLIC COORDINATES
12.08477 LAT DEG
106.49714 LONG DEG

TABLE 9 Cont'd

GEOMETRIC ALTITUDE FSL FEET	PRESSURE	TEMPERATURE AIR	RELATIVE HUMIDITY PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (T)	SPEED KNOTS	INDEX OF REFRACTION
64000.0	60.0	-58.3		97.4	571.0	220.6	4.5	1.000022
64500.0	59.6	-57.3		94.0	572.3	182.7	2.2	1.000021
65000.0	59.2	-56.9		92.2	572.8	116.9	2.9	1.000021
65500.0	58.9	-57.0		90.0	572.7	102.1	5.0	1.000020
66000.0	58.5	-57.1		87.9	572.6	96.7	7.2	1.000020
66500.0	58.3	-57.2		85.9	572.5	100.7	6.8	1.000019
67000.0	58.0	-57.3		83.9	572.4	109.2	6.4	1.000019
67500.0	57.8	-57.3		81.9	572.3	119.7	4.7	1.000018
68000.0	57.6	-57.3		80.0	572.4	156.6	3.4	1.000018
68500.0	57.4	-57.1		78.0	572.7	193.3	3.9	1.000017
69000.0	57.3	-56.8		76.1	573.0	206.7	4.8	1.000017
69500.0	57.1	-56.6		74.2	573.3	215.5	5.8	1.000017
70000.0	56.9	-56.3		72.4	573.7	209.8	5.6	1.000016
70500.0	56.7	-55.8		70.5	574.3	203.7	5.4	1.000016
71000.0	56.5	-55.1		68.6	575.3	196.4	5.6	1.000015
71500.0	56.3	-54.7		66.9	575.8	189.7	6.1	1.000015
72000.0	56.1	-54.9		65.4	575.5	182.4	6.6	1.000015
72500.0	55.9	-55.2		63.9	575.2	172.2	7.2	1.000014
73000.0	55.7	-55.4		62.5	574.9	163.7	8.0	1.000014
73500.0	55.5	-55.7		61.1	574.5	157.0	7.9	1.000014
74000.0	55.3	-55.9		59.8	574.2	150.1	7.7	1.000013
74500.0	55.1	-55.3		58.2	575.0	148.3	7.1	1.000013
75000.0	54.9	-54.3		56.6	576.4	156.7	5.9	1.000013
75500.0	54.7	-53.2		55.0	577.7	169.1	4.9	1.000012
76000.0	54.5	-53.1		53.7	577.9	189.8	4.5	1.000012
76500.0	54.3	-53.0		52.4	578.0	210.9	4.8	1.000012
77000.0	54.1	-53.0		51.2	578.0	229.7	5.4	1.000011
77500.0	53.9	-53.0		50.0	578.1	235.7	5.0	1.000011
78000.0	53.7	-52.9		48.8	578.1	244.0	6.5	1.000011
78500.0	53.5	-52.9		47.7	578.2	253.9	7.1	1.000011
79000.0	53.3	-52.9		46.6	578.2	262.2	7.8	1.000010
79500.0	53.1	-52.8		45.5	578.3	269.9	8.5	1.000010
80000.0	52.9	-52.7		44.4	578.4	277.5	9.2	1.000010
80500.0	52.7	-52.7		43.4	578.4	284.0	10.0	1.000010
81000.0	52.5	-52.6		42.4	578.5	285.7	10.3	1.000009
81500.0	52.3	-52.6		41.4	578.6	286.9	10.7	1.000009
82000.0	52.1	-52.5		40.4	578.7	287.5	10.9	1.000009
82500.0	51.9	-52.1		39.4	579.2	288.8	10.7	1.000009
83000.0	51.7	-51.5		38.4	580.0	289.0	10.6	1.000009
83500.0	51.5	-50.9		37.4	580.8	287.7	9.9	1.000008

GEODETIC COORDINATES
32-44497 LAT DEG
106-49714 LONG DEG

UPPER AIR DATA
1100220010
NW 30

TABLE 9 Cont'd

STATION ALTITUDE 4-10-000 FEET MSL
25 APR 63 0800 MDT
ASL 5100.00 10

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED KNOTS	WIND DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OR REFRACTION
84000.0	23.3	-50.2		30.5	581.7	291.2	9.0	1.000004
84500.0	22.8	-49.6		35.5	582.5	295.3	8.1	1.000008
85000.0	22.3	-49.0		34.6	583.3	294.2	8.6	1.000008
85500.0	21.8	-48.4		33.6	584.1	293.2	9.0	1.000004
86000.0	21.3	-47.8		32.9	584.9	293.7	8.7	1.000007
86500.0	20.8	-47.2		32.1	585.7	296.8	7.4	1.000007
87000.0	20.3	-46.5		31.2	586.5	301.3	6.1	1.000007
87500.0	19.8	-46.0		30.5	587.1	323.9	3.9	1.000007
88000.0	19.4	-45.8		29.8	587.4	19.3	3.3	1.000007
88500.0	19.0	-45.6		29.1	587.7	52.2	4.9	1.000006
89000.0	18.6	-45.4		28.4	588.0	18.4	2.0	1.000006
89500.0	18.2	-45.1		27.7	588.3	285.3	2.7	1.000006
90000.0	17.7	-44.9		27.1	588.6	265.9	6.0	1.000006
90500.0	17.4	-44.7		26.5	589.0	201.0	10.0	1.000006
91000.0	17.0	-44.5		25.8	589.1	258.9	14.2	1.000006
91500.0	16.6	-44.2		25.2	589.4	257.7	18.3	1.000006
92000.0	16.2	-44.0		24.7	589.7	255.1	17.7	1.000005
92500.0	15.9	-43.8		24.1	590.0	252.2	17.0	1.000005
93000.0	15.5	-43.6		23.5	590.3	249.2	16.4	1.000005
93500.0	15.2	-43.3		23.0	590.6	245.3	15.2	1.000005
94000.0	14.8	-43.1		22.4	590.9	240.8	14.0	1.000005
94500.0	14.5	-42.9		21.9	591.1	235.4	12.9	1.000005
95000.0	14.2	-42.6		21.4	591.5	232.3	13.4	1.000005
95500.0	13.9	-41.9		20.9	592.4	230.3	14.3	1.000005
96000.0	13.6	-41.3		20.4	593.2	228.4	15.1	1.000005
96500.0	13.3	-40.6		19.9	594.1			1.000004
97000.0	13.0	-39.9		19.4	595.0			1.000004
97500.0	12.7	-39.2		18.9	595.9			1.000004
98000.0	12.4	-38.5		18.4	596.7			1.000004

STATION ALTITUDE 4000.00 FEET MSL
 26 APR. 1953
 ASCENDING NO. 10 0400 MDT

BAROMETRIC LEVELS
 11,002,0010
 HW 30

GEODETIC COORDINATES
 32.80497 LAT DEG
 106.49714 LONG DEG

TABLE 10

PRESSURE GEOPOTENTIAL MILLIBARS	FLEET	TEMPERATURE		REL. HUMIDITY PERCENT	WIND DATA	
		ATP DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
150.0	4602.	15.6	-3.0	26.	276.0	0.9
200.0	6354.	11.1	-5.3	31.	265.0	19.3
250.0	8109.	7.0	-7.5	35.	284.0	15.5
300.0	9963.	2.0	-14.2	27.	274.5	25.0
350.0	11916.	1.1	-22.3	15.	264.4	35.0
400.0	14008.	-4.0	-24.0	16.	254.3	50.6
450.0	16236.	-9.5	-27.7	21.	237.5	24.2
500.0	18674.	-15.6	-32.4	22.	232.6	23.2
550.0	21210.	-22.0	-37.0	23.	239.9	20.0
600.0	24067.	-27.6	-44.0	19.	238.1	30.6
650.0	27117.	-34.3	-49.0	21.	245.3	35.7
700.0	30530.	-40.0			247.4	35.0
750.0	34520.	-52.5			254.0	52.3
800.0	39104.	-56.4			263.0	69.5
850.0	41927.	-58.8			267.9	69.9
900.0	45120.	-57.0			265.8	78.9
950.0	48868.	-60.3			260.6	81.5
1000.0	53308.	-62.2			263.2	58.2
1050.0	57915.	-62.8			268.7	40.5
1100.0	60640.	-61.5			269.3	12.2
1150.0	63703.	-58.3			221.3	4.6
1200.0	67506.	-57.4			137.7	3.7
1250.0	72253.	-55.2			172.7	7.1
1300.0	78200.	-52.0			255.2	7.2
1350.0	82143.	-52.1			286.8	18.7
1400.0	86048.	-46.1			311.3	4.7
1450.0	93264.	-43.2			243.7	14.8

** AT LAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 9 101.00 FT MSL
26 APR. 53 0900 MDT
ASCENDING 100. 00

SIGNIFICANT LEVEL DATA
11000300000
JALLEN

GEODETIC COORDINATES
33.10712 LAT DEG
106.49511 LONG DEG

TABLE 11

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MFL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUMIDITY PERCENT
275.9	4051.0	18.4	1.4
269.9	4115.7	19.0	-3.8
259.0	4732.5	16.7	-3.9
211.5	5050.6	12.9	-4.7
255.9	7054.6	7.0	-6.0
224.1	9110.2	4.5	-7.0
200.0	10012.7	2.4	-9.5
170.3	10947.4	1.4	-16.0
143.3	12243.4	.0	-22.3
137.3	12493.4	.5	-19.2
165.7	15784.6	-8.3	-24.8
143.7	16593.8	-0.8	-20.5
100.0	18693.3	-15.8	-32.1
976.0	19009.5	-18.1	-35.0
400.0	24105.1	-27.6	-43.6
363.1	26374.3	-32.2	-47.5
325.9	27049.5	-39.0	-52.9
300.0	30699.6	-44.1	
250.0	34642.6	-53.6	
211.9	39123.4	-56.3	
206.7	38643.4	-56.2	
200.0	39130.7	-57.8	
183.6	41096.5	-60.8	
167.4	43001.6	-58.2	
162.7	43591.6	-58.9	
157.9	44213.5	-57.2	
150.0	45061.7	-58.0	
119.6	49071.4	-59.5	
113.3	51083.9	-61.2	
104.2	52793.7	-60.9	
100.0	53600.4	-62.5	
93.0	55122.3	-61.2	
83.0	57439.8	-63.6	
70.0	58712.6	-58.9	
76.4	59141.4	-59.4	
76.0	60030.7	-62.0	
64.2	62720.0	-58.4	
60.6	63910.7	-58.4	
56.5	65373.7	-58.5	
54.0	66012.1	-55.8	

GEODLTIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

SIGNIFICANT LEVEL DATA
11000.0000
JALLEN

TABLE 11 Cont'd

STATION ALTITUDE 9751.00 FEET MSL
26 APR. 66 0900 MDT
ASCENDING NO. 66

PRESSURE GEODLTIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES CENTIGRADE	DEWPOINT DEGREES CENTIGRADE	
58.0 67039.9	-55.8		
47.4 69060.8	-56.7		
45.1 70107.9	-54.6		
39.7 72002.2	-55.2		
32.6 76090.8	-51.2		
31.5 77739.3	-49.5		
30.0 78795.1	-50.1		
26.3 81630.6	-51.5		
24.2 83032.1	-48.0		
20.0 87612.5	-45.8		
17.4 90190.2	-43.2		
11.4 100173.9	-41.5		
10.0 103160.6	-35.2		
9.3 104004.6	-33.1		
9.2 107779.7	-33.1		

STATION ALTITUDE 4,511.00 FEET ASL
26 APR 63 0900 MDT
ASCENDING NO. 00

UPPER AIR DATA
1100030000
JALLER

GEODETIC COORDINATES
33.16712 LAT NEG
106.49511 LONG NEG

TABLE 12

GEOMETRIC ALTITUDE ASL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CELSIUS	TEMPERATURE DEWPOINT	RELATIVE HUMIDITY PERCENT	DENSITY GR/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
4051.0	870.0	10.4	1.4	32.0	1037.0	666.2	250.0	1.9	1.000201
4500.0	851.1	17.0	-3.0	22.0	1025.0	664.9	242.2	2.2	1.000249
5000.0	841.8	15.0	-4.1	25.1	1012.7	663.0	235.7	2.6	1.000246
5500.0	826.8	14.3	-4.3	27.2	1000.0	661.2	230.8	3.0	1.000243
6000.0	812.0	12.4	-4.7	28.2	987.4	659.4	230.8	3.3	1.000240
6500.0	797.3	11.3	-4.9	31.7	974.5	657.7	264.0	3.9	1.000237
7000.0	782.1	9.8	-5.2	30.2	961.8	656.0	200.1	5.8	1.000234
7500.0	760.6	8.3	-5.0	36.7	949.3	654.3	204.2	8.5	1.000231
8000.0	734.6	6.9	-6.0	30.2	936.9	652.6	279.7	9.9	1.000228
8500.0	740.7	5.8	-6.4	40.0	923.2	651.3	274.3	10.9	1.000224
9000.0	727.1	4.7	-6.0	42.6	909.7	650.0	270.3	11.5	1.000221
9500.0	713.0	3.6	-6.1	42.1	896.7	648.7	269.3	13.2	1.000216
10000.0	700.3	2.4	-9.4	41.0	883.9	647.2	270.3	15.8	1.000212
10500.0	687.2	1.8	-13.0	32.2	869.6	646.4	270.2	20.0	1.000205
11000.0	674.4	1.3	-16.0	24.9	855.2	645.7	269.7	24.5	1.000199
11500.0	661.7	1.0	-18.6	21.3	840.1	645.3	266.4	28.2	1.000194
12000.0	649.3	.7	-21.0	17.4	825.3	645.0	263.2	30.6	1.000190
12500.0	637.1	.5	-19.3	21.0	810.5	644.7	259.0	30.5	1.000187
13000.0	625.0	-.9	-20.1	21.7	799.2	643.0	256.2	29.7	1.000184
13500.0	613.0	-2.4	-21.0	22.3	786.1	641.3	254.0	28.5	1.000181
14000.0	601.3	-3.3	-21.0	22.0	777.2	639.6	250.8	29.1	1.000179
14500.0	589.9	-5.2	-22.0	23.6	766.4	637.9	246.7	29.1	1.000176
15000.0	576.6	-6.6	-23.7	24.2	755.8	636.2	241.6	28.7	1.000173
15500.0	567.5	-8.1	-24.0	24.0	745.4	634.5	239.1	26.9	1.000171
16000.0	556.5	-8.7	-26.2	22.9	733.4	633.4	236.1	25.8	1.000167
16500.0	545.7	-9.7	-24.1	20.5	721.2	632.5	233.2	25.1	1.000164
17000.0	535.0	-11.0	-20.1	20.6	710.5	630.9	232.3	24.5	1.000161
17500.0	524.4	-12.4	-30.0	21.3	700.3	629.2	232.8	24.5	1.000159
18000.0	514.1	-13.3	-30.9	22.0	690.3	627.5	234.8	25.2	1.000156
18500.0	503.9	-15.2	-31.7	22.7	680.4	625.7	237.8	27.5	1.000154
19000.0	493.9	-16.4	-32.8	22.5	669.0	624.4	240.2	30.3	1.000151
19500.0	484.0	-17.3	-34.0	21.7	658.9	623.2	240.2	32.2	1.000149
20000.0	474.2	-18.3	-35.2	21.0	648.1	622.0	239.0	33.5	1.000146
20500.0	464.5	-19.4	-35.2	20.9	637.0	620.6	236.5	34.0	1.000144
21000.0	455.2	-20.6	-37.2	20.7	627.4	619.2	235.3	35.8	1.000141
21500.0	445.6	-21.7	-36.2	20.0	617.3	617.8	234.7	37.6	1.000139
22000.0	436.5	-22.8	-30.3	20.5	607.3	616.4	235.2	38.0	1.000136
22500.0	427.5	-24.0	-40.3	20.4	597.6	615.0	237.5	36.9	1.000134
23000.0	418.6	-25.1	-41.3	20.3	588.0	613.6	241.7	34.8	1.000132
23500.0	410.2	-26.2	-42.3	20.1	578.0	612.2	246.3	34.3	1.000130

UPPER AIR DATA
1100030000
JALLFN

GEODETIC COORDINATES
33-16712 LAT DEG
106-49511 LONG DEG

STATION ALTITUDE 451.0 FT MSL
25 APR 53 0900 MDT
ASL 51.0 FT MSL

TABLE 12 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	REL. HUMIDITY PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KILOTS	WIND DATA DIRECTION ULGREGS(TN)	SPEED KILOTS	INDEX OF REFRACTION
24000.0	401.7	-27.4	-43.0	20.0	569.3	610.8	249.0	34.1	1.000128
24500.0	393.3	-28.4	-44.2	20.0	559.8	609.5	250.6	34.1	1.000125
25000.0	385.0	-29.4	-45.1	20.0	550.2	608.2	253.1	34.4	1.000123
25500.0	376.6	-30.4	-46.0	20.0	540.9	607.0	256.1	35.6	1.000121
26000.0	368.3	-31.4	-46.8	20.0	531.7	605.7	257.8	37.3	1.000119
26500.0	361.1	-32.5	-47.8	20.1	522.8	604.3	257.6	39.3	1.000117
27000.0	353.3	-33.9	-48.9	20.3	514.5	602.0	255.9	41.0	1.000115
27500.0	345.7	-35.3	-49.9	20.5	506.3	600.9	253.3	41.8	1.000113
28000.0	338.2	-36.7	-51.0	20.7	498.2	599.1	251.1	41.9	1.000111
28500.0	330.9	-38.0	-52.2	20.9	490.3	597.4	249.4	41.1	1.000110
29000.0	323.7	-39.4	-54.0	19.3**	482.4	595.6	247.4	40.6	1.000108
29500.0	316.5	-40.8	-57.3	13.6**	474.6	593.9	247.0	40.4	1.000106
30000.0	309.5	-42.2	-63.2	7.9**	466.6	592.1	249.0	40.4	1.000104
30500.0	302.7	-43.6	-73.0	2.3**	459.3	590.3	251.0	40.9	1.000102
31000.0	295.8	-44.8			451.4	588.7	252.9	41.5	1.000101
31500.0	289.2	-46.0			443.4	587.1	253.2	41.6	1.000099
32000.0	282.5	-47.2			435.6	585.6	253.4	41.7	1.000097
32500.0	275.9	-48.4			427.9	584.0	253.5	41.9	1.000095
33000.0	269.7	-49.6			420.4	582.4	253.4	42.5	1.000094
33500.0	263.6	-50.8			413.0	580.9	252.9	43.5	1.000092
34000.0	257.5	-52.1			405.0	579.3	253.7	45.7	1.000090
34500.0	251.7	-53.3			398.7	577.7	255.5	49.1	1.000089
35000.0	245.8	-53.9			390.5	576.9	256.9	53.6	1.000087
35500.0	240.0	-54.3			382.0	576.4	257.9	59.0	1.000085
36000.0	234.0	-54.7			373.7	575.9	259.1	63.6	1.000083
36500.0	228.9	-55.0			365.6	575.4	260.2	67.7	1.000081
37000.0	223.5	-55.4			357.6	574.8	262.0	71.4	1.000080
37500.0	218.3	-55.8			349.9	574.3	264.2	74.8	1.000078
38000.0	213.1	-56.2			342.3	573.8	266.1	76.1	1.000076
38500.0	208.1	-56.2			334.2	573.3	268.1	75.6	1.000074
39000.0	203.2	-57.0			327.5	572.7	269.2	74.4	1.000073
39500.0	198.4	-58.1			321.3	571.3	269.4	72.5	1.000072
40000.0	193.6	-59.9			314.9	570.2	269.1	71.4	1.000070
40500.0	189.2	-59.8			308.6	569.1	268.0	71.6	1.000069
41000.0	184.5	-60.6			302.4	567.9	266.8	71.8	1.000067
41500.0	180.0	-60.2			294.6	568.4	265.4	72.1	1.000066
42000.0	175.7	-59.6			286.8	569.3	264.0	72.3	1.000064
42500.0	171.5	-58.9			278.9	570.3	262.6	72.3	1.000062
43000.0	167.4	-58.2			271.3	571.2	261.6	72.8	1.000060
43500.0	163.4	-58.8			265.0	570.4	261.0	73.9	1.000059

** AT LAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 451.00 FEET ASL
 26 APR 73
 ASCENSION NO. 05 0900 MDT

UPPER AIR DATA
 1160030060
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49311 LONG DEG

TABLE 12 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CM ³	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
44000.0	152.5	-67.8		258.0	571.7	261.0	75.4	1.000057
44500.0	152.7	-67.4		251.5	572.2	261.0	77.2	1.000056
45000.0	152.9	-67.0		245.9	571.7	262.3	78.9	1.000055
45500.0	143.0	-68.1		240.4	571.3	263.0	80.4	1.000054
46000.0	144.9	-68.2		234.8	571.1	263.2	81.4	1.000052
46500.0	141.4	-68.4		229.4	570.9	262.5	81.5	1.000051
47000.0	130.1	-68.5		224.1	570.7	261.7	81.4	1.000050
47500.0	134.8	-68.7		218.9	570.5	260.5	80.2	1.000049
48000.0	131.5	-68.9		213.9	570.3	259.3	79.0	1.000048
48500.0	123.4	-69.0		208.9	570.1	259.0	78.1	1.000047
49000.0	125.3	-69.2		204.1	569.9	258.6	77.2	1.000045
49500.0	122.4	-69.3		199.4	569.8	258.7	76.7	1.000044
50000.0	119.4	-69.5		194.8	569.4	258.8	76.1	1.000043
50500.0	110.6	-69.3		190.8	568.4	258.9	74.8	1.000042
51000.0	113.8	-61.1		186.9	567.3	259.1	73.0	1.000042
51500.0	111.0	-61.1		182.4	567.3	259.4	71.2	1.000041
52000.0	100.3	-61.0		177.9	567.4	260.0	69.6	1.000040
52500.0	105.7	-61.0		173.6	567.5	260.7	68.0	1.000039
53000.0	103.2	-61.3		169.7	567.1	261.9	67.4	1.000038
53500.0	100.7	-62.2		164.3	565.8	263.2	67.1	1.000037
54000.0	90.3	-62.2		162.2	563.9	264.5	66.4	1.000036
54500.0	92.9	-61.7		158.0	563.4	265.7	65.0	1.000035
55000.0	92.6	-61.3		153.9	567.0	267.0	63.7	1.000034
55500.0	91.3	-61.6		150.3	566.0	268.4	60.5	1.000033
56000.0	89.1	-62.1		147.0	566.0	270.0	57.2	1.000033
56500.0	80.9	-62.6		143.8	565.3	272.0	52.1	1.000032
57000.0	84.8	-63.1		140.7	564.6	274.8	44.4	1.000031
57500.0	82.8	-63.4		137.4	564.2	278.7	36.8	1.000031
58000.0	80.8	-61.5		132.9	566.7	280.8	28.5	1.000030
58500.0	78.8	-69.7		128.6	569.2	284.0	20.1	1.000029
59000.0	76.9	-69.2		125.3	569.8	285.2	13.4	1.000028
59500.0	75.1	-69.3		122.7	568.9	274.5	9.6	1.000027
60000.0	73.2	-69.6		120.1	567.9	252.0	6.5	1.000027
60500.0	71.5	-61.4		117.0	566.9	227.1	5.3	1.000026
61000.0	69.8	-61.9		115.1	566.3	200.2	5.2	1.000026
61500.0	68.1	-60.9		111.8	567.6	175.2	5.8	1.000025
62000.0	66.5	-60.9		108.6	569.0	145.7	6.1	1.000024
62500.0	64.9	-60.8		105.5	570.3	124.3	7.8	1.000023
63000.0	63.3	-68.4		102.7	570.9	112.6	8.8	1.000023
63500.0	61.8	-68.4		100.3	570.9	103.7	8.6	1.000022

GEOPHYSICAL COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

UPPER AIR DATA
 1100030000
 JALLEN

STATION / LOCATION / DATE / TIME
 26 APR 63 0907 MDT
 ASL 51.100. 00

TABLE 12 Cont'd

GEOMETRIC ALTITUDE FSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUMID. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/SEC	DIRECTION, DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
64000.0	60.4	-58.4		97.9	570.9	97.1	10.1	1.000022
64500.0	59.9	-58.4		95.8	570.8	94.5	9.1	1.000021
65000.0	59.5	-58.5		93.3	570.8	91.3	8.2	1.000011
65500.0	59.2	-58.8		90.9	571.5	94.5	7.3	1.000020
66000.0	58.8	-59.9		87.9	574.3	101.2	6.6	1.000020
66500.0	58.5	-59.8		85.8	574.3	110.3	6.1	1.000019
67000.0	58.3	-59.8		83.8	574.3	123.2	6.1	1.000019
67500.0	58.1	-59.8		81.8	574.3	135.4	6.4	1.000018
68000.0	49.9	-59.8		79.9	574.3	148.3	6.5	1.000018
68500.0	49.7	-59.2		78.2	573.8	160.8	6.9	1.000017
69000.0	47.5	-56.7		76.5	573.2	170.9	7.6	1.000017
69500.0	45.4	-55.8		74.4	574.3	177.5	8.1	1.000017
70000.0	43.3	-54.8		72.3	573.8	183.2	8.6	1.000016
70500.0	44.3	-54.7		70.6	573.8	186.3	8.9	1.000016
71000.0	43.2	-54.8		69.0	573.7	187.6	8.8	1.000015
71500.0	42.2	-54.0		67.4	573.5	188.8	8.8	1.000015
72000.0	41.2	-55.0		65.9	573.4	191.1	8.3	1.000015
72500.0	40.3	-55.1		64.3	573.2	193.8	7.9	1.000014
73000.0	39.3	-55.0		62.8	573.4	196.7	7.4	1.000014
73500.0	38.4	-54.5		61.2	576.0	198.6	7.4	1.000014
74000.0	37.5	-54.1		59.7	576.6	200.4	7.3	1.000013
74500.0	36.7	-53.6		58.2	577.3	199.1	7.2	1.000013
75000.0	35.8	-53.1		56.7	577.9	193.1	7.3	1.000013
75500.0	35.0	-52.6		55.3	576.5	187.4	7.4	1.000012
76000.0	34.2	-52.2		53.9	579.1	180.1	7.3	1.000012
76500.0	33.4	-51.7		52.5	579.8	190.8	7.0	1.000012
77000.0	32.6	-51.2		51.2	580.4	201.4	6.1	1.000011
77500.0	31.9	-50.6		49.7	581.9	200.0	5.3	1.000011
78000.0	31.1	-49.6		48.5	582.4	270.9	6.7	1.000011
78500.0	30.4	-49.9		47.5	582.0	292.9	7.6	1.000011
79000.0	29.7	-50.2		46.4	581.7	310.0	9.0	1.000010
79500.0	29.0	-50.4		45.4	581.4	319.8	9.7	1.000010
80000.0	28.4	-50.7		44.4	581.1	326.0	8.3	1.000010
80500.0	27.7	-50.9		43.5	580.7	334.6	7.1	1.000010
81000.0	27.1	-51.2		42.5	580.4	329.4	6.3	1.000009
81500.0	26.5	-51.4		41.6	580.1	320.5	5.7	1.000009
82000.0	25.9	-50.8		40.5	580.9	314.5	4.9	1.000009
82500.0	25.3	-49.8		39.4	582.2	314.9	3.8	1.000009
83000.0	24.7	-48.8		38.3	583.5	315.0	2.7	1.000009
83500.0	24.1	-48.0		37.3	584.6	292.9	1.0	1.000009

1.1104 ALTITUDE 8000.0 FT. 1.1104
 26 APR 53 0900 MDT
 ASCENDING NO.

UPPER AIR DATA
 1100030000
 JALLER

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LONG DEG

TABLE 12 CONT'D

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE IN DEGREES CELSIUS	DENSITY PERCENT	WIND DIRECTION DEGREES (TR)	WIND SPEED KNOTS	INDEX OF REFRACTION
84000.0	25.6	-47.7	36.4	180.4	1.2	1.000000
84500.0	25.5	-47.4	35.6	169.7	2.3	1.000000
85000.0	24.5	-47.2	34.7	179.9	2.3	1.000000
85500.0	24.3	-46.9	33.9	189.4	2.5	1.000000
86000.0	21.5	-46.6	33.1	209.3	3.1	1.000000
86500.0	21.2	-46.4	32.3	222.4	4.1	1.000000
87000.0	20.5	-46.1	31.6	229.1	5.0	1.000000
87500.0	20.1	-45.9	30.6	231.5	5.5	1.000000
88000.0	19.7	-45.4	30.1	233.6	5.9	1.000000
88500.0	19.2	-44.9	29.3	245.3	5.3	1.000000
89000.0	18.8	-44.4	28.6	255.6	4.7	1.000000
89500.0	18.6	-43.9	27.9	265.8	4.6	1.000000
90000.0	18.6	-43.4	27.2	291.2	4.0	1.000000
90500.0	17.6	-43.1	26.6	298.5	3.4	1.000000
91000.0	17.2	-43.1	26.0	279.0	3.5	1.000000
91500.0	16.8	-43.0	25.4	251.6	5.1	1.000000
92000.0	16.4	-42.9	24.8	239.0	7.3	1.000000
92500.0	16.1	-42.8	24.3	234.6	12.7	1.000000
93000.0	15.7	-42.7	23.7	233.0	18.4	1.000000
93500.0	15.4	-42.6	23.2	233.1	22.5	1.000000
94000.0	15.0	-42.6	22.7	235.6	22.9	1.000000
94500.0	14.7	-42.5	22.2	238.1	23.3	1.000000
95000.0	14.4	-42.4	21.7	242.3	21.7	1.000000
95500.0	14.0	-42.3	21.2	248.3	19.5	1.000000
96000.0	13.7	-42.2	20.7	255.4	17.4	1.000000
96500.0	13.4	-42.1	20.3	259.1	15.4	1.000000
97000.0	13.1	-42.0	19.8	263.8	13.4	1.000000
97500.0	12.8	-42.0	19.4	270.7	12.6	1.000000
98000.0	12.6	-41.9	18.9	278.2	13.3	1.000000
98500.0	12.3	-41.8	18.5	284.9	14.2	1.000000
99000.0	12.3	-41.7	18.1	281.8	14.6	1.000000
99500.0	11.7	-41.6	17.7	277.4	14.9	1.000000
100000.0	11.5	-41.5	17.3	269.8	15.4	1.000000
100500.0	11.2	-41.5	16.9	253.1	16.6	1.000000
101000.0	11.0	-41.4	16.4	239.7	19.0	1.000000
101500.0	10.8	-41.3	16.0	237.3	22.4	1.000000
102000.0	10.5	-41.2	15.6	240.0	26.2	1.000000
102500.0	10.3	-41.1	15.2	242.1	29.9	1.000000
103000.0	10.1	-41.0	14.8	244.8	29.2	1.000000
103500.0	9.9	-40.9	14.4	248.3	27.2	1.000000

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

UPPER AIR DATA
1100030065
JALLD

TABLE 12 Cont'd

STATION ALTITUDE 4 51.00 FT MSL
24 APR. 63 0900 MDT
ACQUISITION NO. 03

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND M/SEC	WIND DATA DIRECTION ULGREL (TIN)	SPEED KNOTS	INDEX OF REFRACTION
104000.0	9.0	-34.2		14.1	602.3	252.4	25.4	1.000003
104500.0	9.4	-33.5		13.7	603.1			1.000003
105000.0	9.2	-33.1		13.4	603.6			1.000003
105500.0	9.0	-33.1		13.1	603.0			1.000003
106000.0	8.8	-33.1		12.6	603.0			1.000003
106500.0	8.7	-33.1		12.0	603.0			1.000003
107000.0	8.5	-33.1		12.3	603.0			1.000003
107500.0	8.3	-33.1		12.0	603.0			1.000003

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STATION ALTITUDE 4051.0 FEET MSL
26 APR 63 0900 MDT
ASCEP51000.

PADOUTSIDE LEVEL
11600.0000
WALLER

GEODETIC COORDINATES
33.10712 LAT DEG
106.49511 LONG DEG

TABLE 13

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
WALLER	FEET	DEGREES CENTIGRADE	DEWPOINT	PERCENT	DIRECTION DEGREES (TN)	SPEED KNOTS	
750.0	4720.	16.7	-3.9	74.	259.0	2.4	
600.0	6406.	11.6	-4.9	31.	250.0	3.7	
750.0	8109.	6.5	-5.2	40.	277.7	10.2	
700.0	10004.	2.0	-0.5	41.	270.4	15.8	
650.0	11961.	.8	-20.0	10.	265.5	30.6	
600.0	14055.	-0.0	-22.0	23.	250.4	29.1	
550.0	16202.	-0.4	-27.2	21.	234.3	25.4	
500.0	18671.	-15.0	-32.1	23.	230.0	26.6	
450.0	21251.	-21.2	-37.6	21.	239.9	37.0	
400.0	24067.	-27.6	-43.0	20.	249.3	34.1	
350.0	27170.	-34.5	-49.3	20.	254.9	41.4	
300.0	30500.	-44.1			251.8	41.1	
250.0	34570.	-53.6			255.9	50.0	
200.0	39200.	-57.0			269.3	73.2	
175.0	41960.	-50.4			263.9	72.3	
150.0	45164.	-59.0			262.6	79.7	
125.0	48923.	-59.2			250.0	77.2	
100.0	53920.	-62.5			263.5	67.0	
80.0	58903.	-69.8			201.0	25.7	
70.0	60735.	-62.0			204.9	5.2	
60.0	63901.	-53.4			96.7	9.9	
50.0	67600.	-55.0			140.0	0.5	
40.0	72360.	-55.2			194.5	7.8	
30.0	78454.	-50.1			302.5	8.3	
25.0	82362.	-49.4			315.2	3.4	
20.0	87208.	-45.8			231.9	5.5	
15.0	93550.	-42.5			255.5	22.9	
10.0	102608.	-35.2			245.0	28.8	

** AT LAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.